

What is Claimed is:

1. An electric circuit interrupter, comprising:
 - a housing;
 - a detection mechanism located adjacent the housing and configured to determine when a ground fault in a first circuit exists; and
 - an interrupter device located adjacent the housing and configured to open the first circuit when a ground fault is detected by the detection mechanism, wherein the interrupter device includes a relay configured such that a state of the relay can be changed when the electric circuit interrupter is operational and the state of the relay cannot be changed when the electric circuit interrupter is not operational.
2. The electric circuit interrupter of claim 1, further comprising:
 - a reset mechanism wherein when the electric circuit interrupter is operational, has been tripped and the reset mechanism is activated, a test signal is applied to the detection mechanism and the relay is caused to change states to close the first circuit.
3. The electric circuit interrupter of claim 1, wherein when the detection mechanism determines that a ground fault exists, the relay is caused to change states to open the first circuit.
4. The electric circuit interrupter of claim 1, wherein the relay is a bistable latching relay.
5. The electric circuit interrupter of claim 2, wherein the reset mechanism includes means for simulating a ground fault, and the detection mechanism provides a signal to the relay when a simulated ground fault is detected by the detection mechanism, and the relay is caused to change state upon receipt of the signal.

PATENT
Attorney Docket No. 034806-5016

6. The electric circuit interrupter of claim 1, wherein the detection mechanism provides a fault signal to the relay when a ground fault is detected, and the relay is caused to change state upon receipt of the fault signal.

7. The electric circuit interrupter of claim 1, wherein the detection mechanism includes a detection circuit.

8. A method for using an electric circuit interrupter, comprising:
providing an electric circuit interrupter that includes circuitry and is connected to a first circuit, wherein the circuitry includes a relay;
causing the relay to change states when the circuitry of the electric circuit interrupter is operational, such that the first circuit changes between an opened state and a closed state.

9. The method for using an electric circuit interrupter of claim 8, further comprising:
not permitting the relay to change states when the circuitry of the electric circuit interrupter is not operational.

10. The method for using an electric circuit interrupter of claim 8, wherein the relay includes a relay coil, and the step of causing the relay to change states can occur only when the relay coil is operational.

11. The method for using an electric circuit interrupter of claim 8, wherein the step of causing the relay to change states includes detecting a ground fault in the first circuit.

12. The method for using an electric circuit interrupter of claim 8, wherein the step of causing a relay to change states includes activating a reset switch on the electrical circuit interrupter.

PATENT
Attorney Docket No. 034806-5016

13. The method for using an electric circuit interrupter of claim 12, wherein the step of activating a reset switch causes a simulated ground fault to occur.
14. The method for using an electric circuit interrupter of claim 8, wherein the step of causing the relay to change states inherently determines whether the electric circuit interrupter is operational.
15. The method for using an electric circuit interrupter of claim 8, wherein the step of causing a relay to change states opens the first circuit.
16. The method for using an electric circuit interrupter of claim 8, wherein the step of causing a relay to change states closes the first circuit.